

**THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appeal No:

In re the Application of: **URANO et al.**

Group Art Unit: **1626**

Serial Nos.: **90/004,812 & 09/810,650**

Examiner: **STOCKTON, Laura**

Filed: **October 23, 1997**

P.T.O. Confirmation Nos.: **8528 & 8670**

For: **DIAZODISULFONES**

**MERGED REISSUE & REEXAMINATION PROCEEDING**  
**BRIEF ON APPEAL**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Date: April 27, 2006

Sir:

This is an appeal from the Office Action dated November 1, 2005 in which claims 8-14 and 32-35 were finally rejected.

A Notice of Appeal was timely filed on December 28, 2005.

An Amended Notice of Appeal was filed on April 26, 2006 indicating that only claims 8-11 were being appealed.

An Amendment canceling claims 12-14 and 32-35, which were filed in a divisional reissue application on April 25, 2006, is being filed on even date herewith.

This Appeal Brief is being filed with a **two month Extension of Time** to extend the time for filing this Appeal Brief from **February 28, 2006 to April 28, 2006**.

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**I. REAL PARTY IN INTEREST**

The real party in interest is the assignee of the subject application, which is:

**WAKO PURE CHEMICAL INDUSTRIES, LTD.**

1-2, Doshomachi 3-chome

Chuo-ku, Osaka 540-8605 JAPAN

## **II. RELATED APPEALS AND INTERFERENCES**

Appellants know of no other appeals or interference proceedings related to the present appeal.

### **III. STATUS OF CLAIMS**

Claims 8-11 on appeal have been finally rejected and are the subject of this appeal.

Claims 1-6 and 15-31 have been canceled.

Claims 12-14 and 32-35 were filed in a divisional reissue application on April 25, 2006 and are being canceled in an amendment filed on even date herewith, with the expectation that the cancellation of the claims will be entered and are not the subject of this appeal.

Claim 7 has been allowed.

#### **IV. STATUS OF AMENDMENTS**

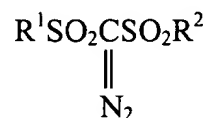
All previous amendments, except for the amendment filed on even date herewith, have been entered.

An amendment is being filed on today to cancel claims 12-14 and 32-35, which were filed in a divisional reissue application on April 25, 2006, and to amend the specification to cross-reference the divisional reissue application as required by 37 CFR § 1.177(a).

## V. SUMMARY OF THE CLAIMED SUBJECT MATTER

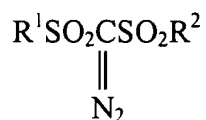
The invention as now claimed, as compared with claims previously appealed in this merged reissue and reexamination, are two specific compounds.

The two specific compounds are recited in claims 8-11 as a diazodisulfone compound of the formula:



wherein R<sup>1</sup> is a cyclic alkyl group in which the alkyl group is hexyl; and R<sup>2</sup> is a cyclic alkyl group in which the alkyl group is hexyl; and

a diazodisulfone compound of the formula:



wherein R<sup>1</sup> is a branched alkyl group in which the alkyl group is butyl; and R<sup>2</sup> is a branched alkyl group in which the alkyl group is butyl.

**VI. OUTSTANDING ISSUES AND GROUNDS OF REJECTION TO BE  
REVIEWED ON APPEAL**

1. Whether a nonprecedential opinion can be used as precedent and cited against the appellant by the Examiner, in violation of Fed. Cir. R. § 47.6(b).
2. Whether written description support for single compound claims 8 and 9 exists on its face in the text of the specification (not “selected from” the description in the text) and the chemical shorthand list in the priority document so as to have support from January 30, 1990.
3. Whether or not claims 8-11 on appeal are unpatentable under 35 U.S.C. § 102(e), as being anticipated by Pawlowski et al., US Patent No. 5,338,641.
4. Whether claims 9 and 11 on appeal are unpatentable under 35 U.S.C. § 103(a), as being obvious over Pawlowski et al., US Patent No. 5,338,641.
5. Whether claims 10 and 11 on appeal are duplicates of claims 8 and 9, respectively.



## VII. ARGUMENT

The appellant seeks relief in this second appeal from the improper rejection of two individual compound claims and from the improper use of the previous nonprecedential Federal Circuit decision is in violation of Fed. Cir. R. § 47.6(b), APA § 706 and *Burke Inc. v. Bruno Indep. Living Aids, Inc.*, 51 USPQ2d 1295 (Fed. Cir. 1999). The individual compound claims have been improperly rejected by imposing upon the written description requirement an additional step of “selecting” compounds from a list, rather than simply discerning whether the list, which is in fact chemical shorthand for several compounds, on its face describes the claimed compounds.

### A. THE EXAMINER VIOLATED FEDERAL CIRCUIT RULE § 47.6(b) MAKING A NONPRCEDEDENTIAL OPINION THE RULE OF LAW IN THE EXAMINATION OF NEWLY PRESENTED CLAIMS

The Examiner violated Federal Circuit Rule § 47.6(b) by employing and liberally citing against the appellant a nonprecedential opinion as precedent. *Burke Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 51 USPQ2d 1295 (Fed. Cir. 1999), holds that a nonprecedenital opinion may only be used if it **invokes the exact same claims of the same patent**. Unlike in the exception explained in *Burke*, the Examiner applied *In re Wako Pure Chemical Industries Ltd.* (Nonprecedential Opinion 00-1139, February 1, 2001), to deny the appellant a fair examination of newly appealed claims 8-11 and instead, treated the examination after *In re Wako* as a repeat of the examination before, in spite of the fact that the previous claims were directed to subgenera of

alkyls with 3 to 8 carbon atoms, rather than the present claims of singular scope involving individual compounds.

The differences in the claims can easily be shown by comparison:

Current Independent Claims	Appealed Independent Claims of <i>In re Wako</i>
<p>Claim 8. A diazodisulfone compound of the formula:</p> $\begin{array}{c} \text{R}^1\text{SO}_2\text{CSO}_2\text{R}^2 \\ \parallel \\ \text{N}_2 \end{array}$ <p>wherein R<sup>1</sup> is a cyclic alkyl group in which the alkyl group is <b>hexyl</b>; and R<sup>2</sup> is a cyclic alkyl group in which the alkyl group is <b>hexyl</b>.</p>	<p>Claim 1. A diazodisulfone compound of the formula:</p> $\begin{array}{c} \text{R}^1\text{SO}_2\text{CSO}_2\text{R}^2 \\ \parallel \\ \text{N}_2 \end{array}$ <p>wherein R<sup>1</sup> is a branched or cyclic alkyl group having <b>3 to 8 carbon atoms</b>; and R<sup>2</sup> is a straight-chain, branched or cyclic alkyl group having <b>1 to 8 carbon atoms</b>.</p>
<p>Claim 9. A diazodisulfone compound of the formula:</p> $\begin{array}{c} \text{R}^1\text{SO}_2\text{CSO}_2\text{R}^2 \\ \parallel \\ \text{N}_2 \end{array}$ <p>wherein R<sup>1</sup> is a branched alkyl group in which the alkyl group is <b>butyl</b>; and R<sup>2</sup> is a branched alkyl group in which the alkyl group is <b>butyl</b>.</p>	<p>Claim 4. A diazodisulfone compound of the formula:</p> $\begin{array}{c} \text{R}^1\text{SO}_2\text{CSO}_2\text{R}^2 \\ \parallel \\ \text{N}_2 \end{array}$ <p>wherein R<sup>1</sup> is a branched or cyclic alkyl group having <b>3 to 8 carbon atoms</b>; and R<sup>2</sup> is a branched or cyclic alkyl group having <b>3 to 8 carbon atoms</b>.</p>

In short, the appellant has been injured because the non-applicable “selection of a subgenus from a larger genus of compounds” rationale of *In re Wako* is used as if “selection” is the same as the statute 35 USC § 112, as follows:

In applying the rationale given by the Board and the CAFC to instant claims, there is no guidance in the disclosure in the Japanese priority document to select the subject matter as claimed in instant claims 8-11. Further, the Examiner cannot ignore a CAFC judgment (Reexam 90/004812) or a Decision by the Board of Appeals and Interferences (Reexam 90/004812) that relate to any claimed subject matter.

(November 1, 2005 final Office Action p.24, text line 15 to p.25, text line 3)

According to Fed. Cir. R. § 47.6(b) however, the Examiner must not apply nonprecedential opinions as precedent. There was an exception made to this rule in *Burke*, where *the same claim of the same patent was at issue in the case*. In this case however, completely different claims of completely different scope are being appealed therefore the exception does not apply. The rule was created to avoid the situation here, the making of a nonprecedential opinion into the rule of law.

Through the Administrative Procedure Act 5 USC § 706(2)(A) and (D), a Patent Office Examiner is required to act in accordance with the law. The APA § 706(2)(A) and (D) give a reviewing court the authority to hold unlawful and set aside agency findings and conclusions found to be arbitrary, capricious, and an abuse of discretion or otherwise not in accordance with the law or that are made *without observance of the procedure required by law*.

Because the previously appealed claims and the present claims on their face are completely different in scope, it is clear that the Examiner ignored the exception in *Burke* and arbitrarily used a nonprecedential opinion as precedent to prejudice the appellant.

Thus the rejections of the final Office Action relying on the rationale of *In re Wako* should be expunged from the record because they are contrary to law, confusing and highly prejudicial to the appellant. Based on the existence of written description support of claims directed to two specific chemical compounds shown *infra*, claim 8-11 should be allowed.

**B. THE TWO CLAIMED COMPOUNDS HAVE TEXTUAL SUPPORT IN THE PATENT AND THE CORRESPONDING PRIORITY DOCUMENT**

Support is shown below along with an explanation of this area of chemistry in order to provide the context for understanding the skill of artisan in this area.

The appellant's priority document lists alkyl groups, which are simply alkane groups with a hydrogen atom removed.<sup>1</sup> Presenting a skilled chemist with a shorthand listing of compounds in the alkane area of chemistry, known for over 100 years because of their natural occurrence in petroleum, and stating that the chemist would not understand if a specific compound were present in the list is arbitrary and capricious. It is even more arbitrary when it is understood that isomers occur naturally among alkanes in petroleum mixtures, meaning that the configuration of the alkane chain, being straight, branched or cyclic, naturally changes, in some cases from

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<sup>1</sup> As an example, the alkane methane is CH<sub>4</sub> while its corresponding alkyl is methyl, CH<sub>3</sub>.

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moment-to-moment, depending on the external forces on the compound. In any given petroleum mix of alkanes, for example, several isomeric forms will coexist naturally. For example in hexylalkyl, the six carbon atoms will exist as straight chain, branched and cyclic forms.

The skilled chemist of 1990, or even 1890 since alkyls are at issue, would understand from the statement of the existence of carbon atom groups, hexyl and butyl, and isomeric groups straight chain, branched or cyclic that cyclic hexyl and branched butyl exist. For example, the specific disclosure in the priority document is a common shorthand listing of compounds based on the diazodisulfone structural formula on p.14, lines 6-10 as follows:

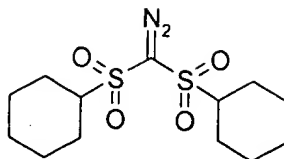
...as the straight-chain, **branched or cyclic** alkyl group or the alkyl group in the haloalkyl group represented by **R<sup>1</sup><sub>o</sub> and R<sup>2</sup><sub>o</sub>**, **there are included** C<sub>1-10</sub> alkyl groups such as methyl, ethyl, propyl, **butyl**, amyl, **hexyl**, octyl, and decyl group. (emphasis added).

The plain English description states what R groups “are included.” As for present claim 8, the only possible issue is whether the skilled chemist would recognize that cyclic hexyl exists as an R group. The plain description above states that cyclic alkyl isomers are part of the invention and specifically that the R groups include hexyl groups. A skilled chemist of 1990 or 1890 knows that all isomers can exist and that since hexyl is specifically recited it is also the invention. Since the claimed R group is identified specifically in the list above, it exists.

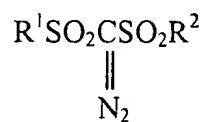
Naturally, it is assumed that the skilled chemist is familiar with chemical nomenclature and would recognize, for example, that all of the following are equivalents:

1. Bis(cyclohexylsulfonyl) diazomethane

2.

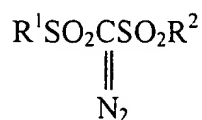


3. Diazodisulfone compound of the formula:



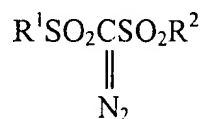
wherein R<sup>1</sup> and R<sup>2</sup> are cyclohexyl.

4. Diazodisulfone compound of the formula:



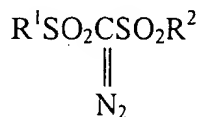
wherein R<sup>1</sup> is cyclohexyl; and R<sup>2</sup> is cyclohexyl.

5. Diazodisulfone compound of the formula:



wherein R<sup>1</sup> and R<sup>2</sup> are a cyclic alkyl groups in which the alkyl group is hexyl.

6. Diazodisulfone compound of the formula:



wherein R<sup>1</sup> is a cyclic alkyl group in which the alkyl group is hexyl; and R<sup>2</sup> is a cyclic alkyl group in which the alkyl group is hexyl.

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To show the naming convention of alkanes and other simple organic compounds, an excerpt from Kice, J.L. et al., *Modern Principles of Organic Chemistry An Introduction*, The Macmillan Co., N.Y., (1967), pp.19-25, has been attached as Exhibit A.

The disclosure of the priority document, simply lists several possible compounds in shorthand form. The ability to read and understand a list of familiar nomenclature in the 100 plus year old alkane art is straightforward and is required not only of skilled chemists, but those who are still in school studying introductory organic chemistry. In reading the list there is no “extrapolation, interpolation and assumptions” to be made. It is merely identification, are the claimed R groups listed in the text or not.

In fact, the Examiner admits that the language is found in the priority document as explained in the November 1, 2005 Office Action p.11, lines 10-11 as “In response, the language found in claims 8 and 9 is found in the Applicants’ priority document.” The Examiner asserts that the language is not found in the US patent, however. In this case the Examiner appears to mean the *in ipsis verbis* language, which is not required, is not found in the US specification. However, for the skilled chemist, mere nomenclature is not an issue and the compounds are in fact disclosed in the US patent. The compound of claims 8 is identified in the reissue specification USP 5,216,135 at col. 2, line 52, using one of the naming conventions discussed above, specifically as bis(cyclohexylsulfonyl) diazomethane.

Thus claim 8 is supported both in the priority document, as admitted by the Examiner, and in the US patent using a standard naming convention. The question of “selection” of a

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subgenus from a genus does not arise because the claims are directed to specifically identified isomeric forms of single compounds.

Similarly, claim 9 is supported in the same chemical description in the priority document p.14, lines 6-10 as follows:

...as the straight-chain, **branched** or cyclic alkyl group or the alkyl group in the haloalkyl group represented by **R<sup>1</sup><sub>o</sub>** and **R<sup>2</sup><sub>o</sub>**, **there are included** C<sub>1-10</sub> alkyl groups such as methyl, ethyl, propyl, **butyl**, amyl, hexyl, octyl, and decyl group. (emphasis added)

As for present claim 9, the only possible issue is whether the skilled chemist would recognize that branched butyl exists as an R group. The plain description above states that branched alkyl isomers are part of the invention and specifically that the R groups include butyl groups. A skilled chemist knows that all isomers can exist and that since butyl is specifically recited it is also the invention. Since the claimed R group is identified specifically in the list above, it exists.

As explained above, the skilled chemist would understand the common naming conventions. Again, the Examiner admits that the language is found in the priority document as explained above. The Examiner asserts that the language is not found in the US patent, however for the skilled chemist, mere nomenclature is not an issue and the compounds are in fact disclosed in the US patent. The compound of claims 9 is identified in reissue specification USP 5,216,135 at col. 2, lines 55 and 56, using one of the naming conventions discussed above, specifically as



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bis(tert-butylsulfonyl)diazomethane and bis(sec-butylsulfonyl)diazomethane, which are the only two possible branched forms for four carbon atoms.

Thus claim 9 is supported both in the priority document, as admitted by the Examiner, and in the US patent using a standard naming convention.

The Examiner noted on p.13 of the Office Action that claim 3 of the original patent US 5,216,135, which contained bis(cyclohexylsulfonyl)diazomethane, bis(tert-butylsulfonyl)diazomethane and bis(sec-butylsulfonyl)diazomethane was rejected by the Board in the previous appeal and not appealed to the Federal Circuit. Original claim 3 named a total of ten compounds, including the three above. The fact that claim 3 was not appealed only means that the applicants relinquished their rights to a claim with a scope of ten compounds, but however did not relinquish their rights to a claim of singular compound scope. Here again, the Examiner confuses *res judicata* on a separate subgenus issue to prejudice the applicants in a completely new set of reissued claims of singular scope.

The Examiner repeatedly states throughout the Office Action that subject matter of claims 8-11 can be found in original claims 2 and 3. This present reissue application is completely meaningless if the non precedential *In re Wako decision based only on subgenus claims* is used to dispose of the issue of support for individually claimed compounds. Whether or not an entire subgenus is supported is *irrelevant* to the issue of whether support exists for an individual compound.

**C. CLAIMS 8-11 ARE CLEARLY NOT ANTICIPATED BY PAWLOWSKI  
UNDER 35 U.S.C. § 102(e)**

The support for the claimed compounds of claims 8-11 is stated supra.

Since claims 8-11 are supported in the January 30, 1990 priority document, which predates Pawlowski, September 7, 1990, by more than half a year, and the US specification, the anticipation rejection is moot.

**D. CLAIMS 9 AND 11 ARE CLEARLY NOT OBVIOUS OVER PAWLOWSKI  
UNDER 35 U.S.C. § 103(a)**

The support for the claimed compounds of claims 9 and 11 is stated supra.

Since claims 9 and 11 are supported in the January 30, 1990 priority document, which predates Pawlowski, September 7, 1990, by more than half a year, and the US specification, the obviousness rejection is moot.

**E. CLAIMS ARE DUPLICATES AND ALL CLAIMS ARE CLEARLY  
SUPPORTED BECAUSE THE CLAIMS RECITE THE SAME SPECIES**

The appellant admits that claims 8 and 10 are duplicates and claims 9 and 11 are duplicates. The Examiner states that the reason why they are duplicates is because both claims define the same species. However, the serious error is the subsequent 35 U.S.C. § 112, first paragraph, statement

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which finds text support for one claim and not the other, with the only difference being a different name for the same species. Every chemist knows that the same chemical structure can have more than one chemical name under the standard naming rules.

The statement in error is as follows:

In response, claim 10 is a duplicate of claim 8 because both claims define the same species, bis(cyclohexylsulfonyl)diazomethane. However, unlike the language of claim 8, the language in claim 10 is supported by the originally filed specification (column 2, lines 47 and 52) of application no. 07/962,089 (now U.S. Pat. 5,2165,135). No persuasive support could be found for the language “cyclic alkyl group in which the alkyl group is hexyl” found in claim 8.  
(p.5 of the November 1, 2005 Office Action, text lines 10-18)

The error is obviously the statement that assumes that the skilled artisan would not understand that the language of claim 8, “R<sup>1</sup> is a cyclic alkyl group in which the alkyl group is hexyl” and the language of claim 10, “R<sup>1</sup> is cyclohexyl” name the same compound. It is a mistake of fact to assert that a chemist would not understand how to name compounds under standard naming rules. If one description is supported, then the skilled chemist would clearly understand that the description could chemically be written differently to name the same compound. Support exists no matter what conventional name is applied to the structure because support is premised on the chemical structure as understood by the skilled artisan, not the naming convention used for the structure.

The appellant drafted its priority document and US specification for the reasonably skilled chemist. In the appellant’s view, such a chemist would know the standard system for naming chemical structures. Support for the claimed structure exists no matter chemical name it is given, cyclohexyl or a cyclic alkyl group in which the alkyl group is hexyl.

The appellant requests the correction of the mistake of fact that the skilled chemist understands that “R<sup>1</sup> is a cyclic alkyl group in which the alkyl group is hexyl” and the language of claim 10, “R<sup>1</sup> is cyclohexyl” names the same compound. Appellant admits that claims 10 and 11 are duplicates and will be canceled when all claims are allowed.

The Examiner understands that the compounds are the same, but does not understand that the correct 35 USC § 112 support does not require *in ipsius verbis* support as held in several Federal Circuit cases. The function of the description requirement is to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him. *e.g.*, *In re Blaser*, 556 F.2d 534, 194 U.S.P.Q. 122 (C.C.P.A. 1977); *In re Wertheim*, 541 F.2d 257, 191 U.S.P.Q. 90 (C.C.P.A. 1976); *In re Smith & Hubin*, 481 F.2d 910, 178 U.S.P.Q. 620 (C.C.P.A. 1973). To comply with the description requirement it is not necessary that the application describe the claimed invention in *ipsis verbis*, *In re Lukach*, 442 F.2d 967, 58 C.C.P.A. 1233, 169 U.S.P.Q. 795 (1971); all that is required is that it reasonably convey to persons skilled in the art that, as of the filing date thereof, the inventor had possession of the subject matter later claimed by him. *See In re Driscoll*, 562 F.2d 1245, 195 U.S.P.Q. 434 (C.C.P.A. 1977). In the context of the present case, this translates into whether the parent application provides adequate direction which reasonably leads persons skilled in the art to the later claimed compound. *See Flynn v. Eardley*, 479 F.2d 1393, 178 U.S.P.Q. (BNA) 288 (C.C.P.A. 1973).

By the very nature of this inquiry, each case turns on its own specific facts, which is the reason why non precedential opinions like *In re Wako*, which relate to subgenus claims do not at all apply here.

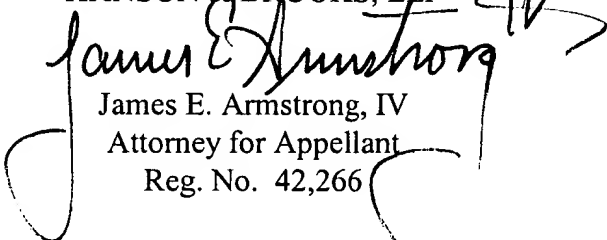
**F. CONCLUSION**

The final rejection should be withdrawn to remove rejections prohibited by law or the claims should stand allowed and passed to issue.

In the event this paper is not timely filed, appellant hereby petitions for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 01-2340, along with any other additional fees which may be required with respect to this paper.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,  
HANSON & BROOKS, LLP

  
James E. Armstrong, IV  
Attorney for Appellant  
Reg. No. 42,266

JAM/jam

Atty. Docket No. **910094RE**

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PATENT TRADEMARK OFFICE

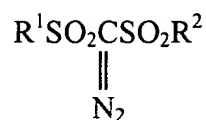
Enclosures: Claims Appendix  
Evidence Appendix  
Related Proceedings Appendix  
Exhibit A

### VIII. CLAIMS APPENDIX

Because claims 12-14 and 32-35 were canceled in an amendment filed on even date herewith which has not yet been entered, the claims are listed as still pending below.

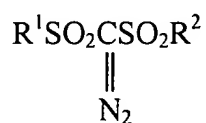
**Claims 1-6 (Canceled).**

**Claim 7 (Previously Presented - Allowed):** A diazodisulfone compound of the formula:



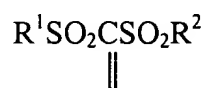
wherein R<sup>1</sup> is a branched alkyl group having 3 to 8 carbon atoms; and R<sup>2</sup> is a cyclic alkyl group having 3 to 8 carbon atoms.

**Claim 8 (Previously Presented):** A diazodisulfone compound of the formula:



wherein R<sup>1</sup> is a cyclic alkyl group in which the alkyl group is hexyl; and R<sup>2</sup> is a cyclic alkyl group in which the alkyl group is hexyl.

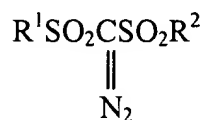
**Claim 9 (Previously Presented):** A diazodisulfone compound of the formula:





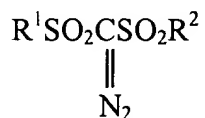
wherein  $\text{R}^1$  is a branched alkyl group in which the alkyl group is butyl; and  $\text{R}^2$  is a branched alkyl group in which the alkyl group is butyl.

**Claim 10 (Previously Presented):** A diazodisulfone compound of the formula:



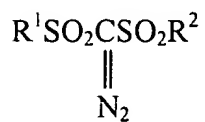
wherein  $\text{R}^1$  is cyclohexyl; and  $\text{R}^2$  is cyclohexyl.

**Claim 11 (Previously Presented):** A diazodisulfone compound of the formula:



wherein  $\text{R}^1$  is a branched butyl; and  $\text{R}^2$  is a branched butyl.

**Claim 12 (Previously Presented):** A reduced light exposure energy photosensitive resist compound of formula:

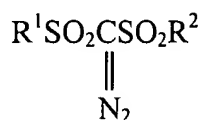


$\text{R}^1$  and  $\text{R}^2$  being independently branched or cyclic alkyl groups having 3 to 8 carbon atoms,

wherein the resist compound is used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface having a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, and the resist compound is sufficient for the polymer on an exposed portion to become alkali-soluble by a chemical change with the acid generated from the resist compound by light exposure energy.

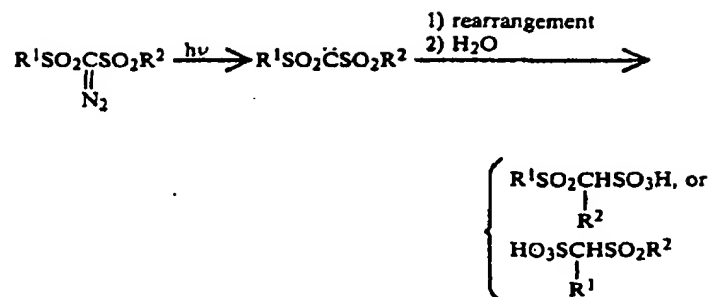
**Claim 13 (Previously Presented):** The photosensitive resist compound of claim 12, wherein the light source is selected from the group consisting of deep UV light and KrF excimer laser light (248.4 nm).

**Claim 14 (Previously Presented):** A reduced light exposure energy photosensitive resist compound of formula:



$\text{R}^1$  and  $\text{R}^2$  being independently branched or cyclic alkyl groups having 3 to 8 carbon atoms, wherein the photosensitive resist compound, when exposed to KrF excimer light, generates an acid by the following reaction scheme:



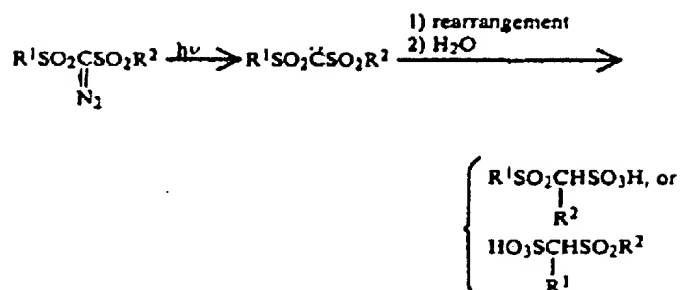


and the photosensitive resist compound is sufficient for a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, on an exposed portion of an exposed surface to become alkali-soluble by a chemical change with the acid generated from the photosensitive resist compound by light exposure energy.

**Claims 15 – 31: Canceled**

**Claim 32 (Previously Presented):** The diazodisulfone compound of claim 7, wherein the compound is one used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface.

**Claim 33 (Previously Presented):** The diazodisulfone compound of claim 7, wherein when the compound is exposed to KrF excimer light it generates an acid by the following reaction scheme:



**Claim 34 (Previously Presented):** The diazodisulfone compound of claim 8, wherein the resist compound is used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface having a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, and the resist compound is sufficient for the polymer on an exposed portion to become alkali-soluble by a chemical change with the acid generated from the resist compound by light exposure energy.

**Claim 35 (Previously Presented):** The diazodisulfone compound of claim 9, wherein the resist compound is used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface having a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, and the resist compound is sufficient for the polymer on an exposed portion to become alkali-soluble by a chemical change with the acid generated from the resist compound by light exposure energy.

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## **IX. EVIDENCE APPENDIX**

### **Exhibit A**

Kice, J.L. et al., *Modern Principles of Organic Chemistry An Introduction*, The Macmillan Co., N.Y., (1967), pp.19-25.

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## **X. RELATED PROCEEDINGS APPENDIX**

Claims 12-14 and 32-35 were filed in a divisional reissue application on April 25, 2006.